

Pennsylvania Archaeology: An Introduction

THE PALEO-INDIAN PERIOD

12,000 B.C. — 8000 B.C.

Few people realize how long Pennsylvania has been inhabited. The earliest Indians came here from Asia many thousands of years ago, when the glaciers were receding. This marks the beginning of what we call the Paleo-Indian period. The climate was much different from that of today; the landscape was in part tundra, and in part composed of scattered stands of spruce and fir. Small, wandering bands of hunters and their families followed herds of big-game animals, mostly of species now extinct.

The best-known artifact of the Paleo-Indian period is the fluted point. This is a small spearhead distinguished by a channel along both faces of the blade, each made by striking a long flake from the base. These points have been found in most parts of the State, but they are not numerous in any area. Because the Paleo-Indian period was short and the population small and mobile, recognizable sites are very rare.

THE ARCHAIC PERIOD

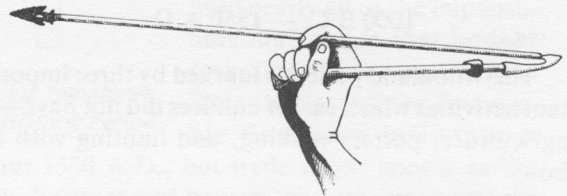
8000 B.C. — 1000 B.C.

By about 10,000 years ago most of the big-game animals of the glacial age had become extinct, and the climate more like that of the present. This was the Archaic period, and the Indians developed a new way of life to adapt to the changing environment. Food resources were available in a greater variety, the most important of which were deer, wild plant foods, shell fish and fish.

During the Archaic period an interesting device called the spear thrower or atlatl came into use. This was a stick about as long as a man's forearm, with a projecting hook at one end, against which the butt end of the spear was set. It enabled the hunter to throw his spear farther and harder, much as if an extra joint had been added to his arm.

Carefully made ground and polished stone weights, usually called bannerstones, were attached to the shaft of the spear thrower to increase the force impelling the dart.

Compared to the Paleo-Indian period, a more specialized set of tools was developed to exploit the changed environment. Ground and polished stone tools such as adzes, axes, and gouges were made for working hard woods. Furthermore, local stone resources were preferred for tool manufacture instead of exotic mineral types formerly obtained from distant sources. Spear points are found in a variety of notched and stemmed styles.



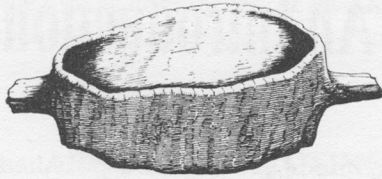
Spear Thrower, Archaic Period

THE TRANSITIONAL PERIOD

1800 B.C. — 800 B.C.

During the latter part of the Archaic period and for several centuries thereafter, there were also people in eastern Pennsylvania who had a somewhat different mode of life. Their sites are frequently found along the banks of rivers and may be recognized by fragments of soapstone bowls and broad spear points.

Steatite (or soapstone, as it is sometimes called) is a soft grayish stone which can easily be carved with tools of harder stone. It was carved into vessels which, in Pennsylvania, are usually oval or rectangular in shape and have flat bottoms. Often the bowls have a lug or handle at each end. Soapstone vessels permitted food to be boiled directly over fire. Soapstone was also used for ornaments such as gorgets, pendants, and beads.



Soapstone Bowl, Transitional Period

Several types of points are found in sites of this period. They are usually broad and well chipped, and many were used as knives and prying tools. The most common materials are rhyolite and jasper. When projectile points became worn or broken, they were sometimes rechipped into scrapers or drills.

THE WOODLAND PERIOD

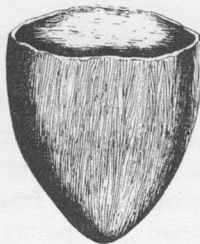
1000 B.C. — 1550 A.D.

The Woodland period is marked by three important activities which earlier cultures did not have — agriculture, pottery-making, and hunting with a bow.

The Early Woodland culture in Pennsylvania is not well known. Pottery of this period is scarce, soft, and so poorly made that it usually crumbles into small bits. Projectile points are usually rather long and narrow, with stems or shallow notches.

Sunflowers and other plant species not familiar to us as food crops were eaten by the Early Woodland people, particularly by the somewhat more advanced Adena cultures of the Ohio Valley. Being plentiful and extremely nutritious, collected seeds could be preserved as a reserve for seasons of famine.

The first smoking pipes, suggesting possibly the use of tobacco, date from this period. These pipes are usually stone tubes and are finely made. Other objects found include ground-stone weights for spear throwers, some of them made in the form of birds, and a variety of axes and adzes.



*Clay Pot,
Early Woodland
Period*

Middle Woodland was the period of the “Mound Builder” cultures of Ohio and adjacent areas. In Pennsylvania, however, the manifestations of this cultural development, except in the extreme west, are much less spectacular. The general mode of life was much like that of Early Woodland. Pottery fragments are more common than in the Early Woodland period, but the pottery is still crude. The first evidence of corn is found at this time, but much of the food was still obtained by hunting, fishing, and gathering wild plants. Pipes are more abundant and more varied in shape than in Early Woodland times.

Projectile points show noticeable changes. They are usually made of choice types of flint, often imported from a great distance. They are finely chipped, smaller points with deeply cut notches. The disappearance of spear-thrower weights indicates that the bow was replacing the spear thrower.

The last prehistoric period is known as Late Woodland. In Pennsylvania it probably began about 1000 A.D. and lasted until the first contacts with the culture of the European. It was marked by settled village life supported by agriculture. Much of the diet continued to be drawn from wild food resources. Sites are usually found on slightly elevated spots on the fertile terraces along rivers and streams, although there are exceptions, especially in western Pennsylvania where sites are on higher ground. Houses of this period were round, oval, or rectangular. The walls were made of posts set into the ground, and the roofs, semicylindrical, domed, or occasionally gabled, were made of bark or mats. Villages were often large and were occasionally surrounded by a wall of posts. The village might be moved, perhaps at intervals of ten to fifteen years, when the soil had lost its productivity and the supply of firewood was exhausted; the new village was usually established only a few miles away.



*Platform Pipe,
Middle Woodland
Period*



*Incised Pot,
Late Woodland
Period*

CULTURAL PERIODS	DATES	PROJECTILE POINTS
COLONIAL (Susquehannocks and other Historically recorded tribes)	1760 A.D. 1550 A.D.	
LATE WOODLAND (Mississippian)	1550 A.D. 1000 A.D.	
MIDDLE WOODLAND (Hopewell)	1000 A.D. 500 B.C.	
EARLY WOODLAND (Adena)	300 B.C. 1000 B.C.	
TRANSITIONAL	800 B.C. 1800 B.C.	
ARCHAIC	1000 B.C. 8000 B.C.	
PALEO - INDIAN	8000 B.C. 12,000 B.C.	

Cultural Periods and Point Types

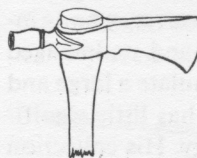
Pottery is much more abundant on Late Woodland sites than on those of the earlier periods. Vessels are larger, better made, and more elaborately decorated. The abundance of vessel fragments is very useful to the archaeologist, for it is by studying the characteristics of pottery that we can learn more about smaller divisions of time and social organization.

The projectile points of this period are true arrowheads, designed for use with the bow. They are small and almost always triangular in shape. Hoes are commonly found on Late Woodland sites; some of them were chipped from shale and notched for the attachment of a handle, while others were

shaped from the shoulder blade of the elk or a slice of its antler. Pipes were made of both stone and pottery and are of varied forms. One of the more common forms is made of clay, with the bowl and stem at obtuse angles to each other. In general, sites of this period yield fewer implements of chipped and ground stonework than do earlier sites, and more artifacts of pottery, bone, and shell.

THE HISTORIC PERIOD

1550 A.D. —



*Pipe Tomahawk,
Historic Period*

Sites of the historic period are marked by objects of European manufacture, in very small quantities at first, but in greater numbers at later times until nearly all of the imperishable material is that bought from traders. For much of the State the date of the first visible European influence is about 1550 A.D., but trade goods appear earlier near the coast and later in the western part of the State.

The coming of the white man resulted in marked changes in Indian life. European diseases — small-pox, tuberculosis, and many others — had a devastating effect on a population which had never developed an immunity to them. Competition for land and trade led to the constant wars of the early historic period and a general breakdown of the old order.

Urged on by the depletion of game and the pressure of white settlement, the Indians of eastern Pennsylvania were forced to sell their lands. By the early seventeenth century most of them were living along the Susquehanna River. Gradually the tide of settlement advanced westward, and by 1789 all tribal land had been ceded by the State. In 1796 the Commonwealth of Pennsylvania awarded three separate parcels of land to the Seneca chief, Cornplanter. He and his people settled upon one, a tract of a little more than a square mile on the Allegheny River in Warren County. This tract was held by Cornplanter's heirs until 1964, when the construc-

ion of the Kinzua Dam forced the dissolution of the last remaining Indian community in Pennsylvania.

ABOUT COLLECTING INDIAN ARTIFACTS

The person who collects Indian artifacts plays an important role in archaeology, a role which may be either helpful or destructive. There are more collectors than professional archaeologists. The collector usually searches for artifacts in his own neighborhood, so he knows his area best. Any archaeological study of the area depends very heavily on the knowledge of the collectors of that region.

There is a type of collector, however, who is interested only in getting complete and undamaged objects. Such a person may accumulate a large and showy collection, but one which has little significance for the study of archaeology. His collection will probably display his own selection of pieces, not a representative sample of items used by the Indians. Further, the artifacts in his collection will probably not be identified by site, thereby forfeiting their scientific value.

Another person may begin merely as a collector of artifacts, but as his interest in the Indians who used them grows, he begins to study the functions of objects and the differences among artifacts from various sites. He may also join the Society for

Pennsylvania Archaeology, a statewide organization of amateur and professional archaeologists. Above all, he keeps accurate records of his finds. Such a person is not just a collector; he is a steward of the past.

Cataloging should be done promptly, while details of the discovery location are still fresh in one's mind. Any system of marking artifacts is good if it enables one to identify the places from which they came. One symbol is all that is necessary to catalog all of the artifacts from a single site. The mark on the artifact should be small and, preferably, on the rougher side, the one opposite the side to be exhibited. India ink is the best easily available marking material. Before marking with ink, a dab of clear nail polish should be applied to the object and allowed to dry. A second coat should then be applied over the dry ink to keep the mark from rubbing off.

The location of each site should be recorded in a notebook, together with the catalog symbol used to mark artifacts from that site. The notebook will then contain a permanent record of information which is archaeologically most significant.

All collectors are encouraged to register their sites with the Pennsylvania Archaeological Site Survey, a compendium of nearly 15,000 sites located throughout the Commonwealth. Significant sites recorded with the Survey are afforded protection from ever-increasing effects of state and/or federally assisted construction projects.